PROJECT DESCRIPTION

I. GENERAL

This project involves the relocation of the south west traffic signal mast arm pole and installation of video camera detection at the intersection of MD 468 and MD 256 in Anne Arundel County, Maryland. MD 468 is considered to run in an east/west direction.

II. INTERSECTION OPERATION

The intersection is to continue to operate in a NEMA four (4) phase, full-traffic-actuated mode. The MD 468 through movements operate as a split phase operation. The MD 256/Gas Station through movements operate concurrently.

The existing cabinet/controller will be utilized at this intersection.

MD 468 is considered to run in an East/West direction.

N

NOTES

1. Geometrics shall be confirmed prior to the installation of signal equipment. All signal equipment to be installed at final grade.
2. Loop detectors and conduits shall be installed prior to the installation of pavement marking and final paving.
3. Pavement markings detailed are proposed and are to be installed by the Contractor in accordance with MD-SHA standards. All other pavement markings will either be installed as part of the Highway project or are to be considered as existing.
4. Revision 'B ' is a revision to the traffic signal built in September, 1994 under S.H.A. Contract No.:AW 793-452-585
5. All underground and overhead utilities shown on these plans are schematic and are not to be to construction so that all utilities may be located in the field. If the Contractor perceives that a conflict between the utilities and the traffic signal equipment will occur, the Contractor shall notify the appropriate Project Engineer immediately.

PROPOSED SIGNALS

7,8
R Y G
12"

PROPOSED CAMERAS

14-17

EXISTING SIGNALS

1,3: R Y G ◁G 12"
2,4-6: R Y G 12"

EXISTING NEMA PHASING

Ø1 Ø2 Ø4 Ø8

FLASHING OPERATION

RELOCATE SIGN

12
SOUTH MARYLAND 256 ←
Shield Assem. 36" x 60"

EXISTING SIGNS

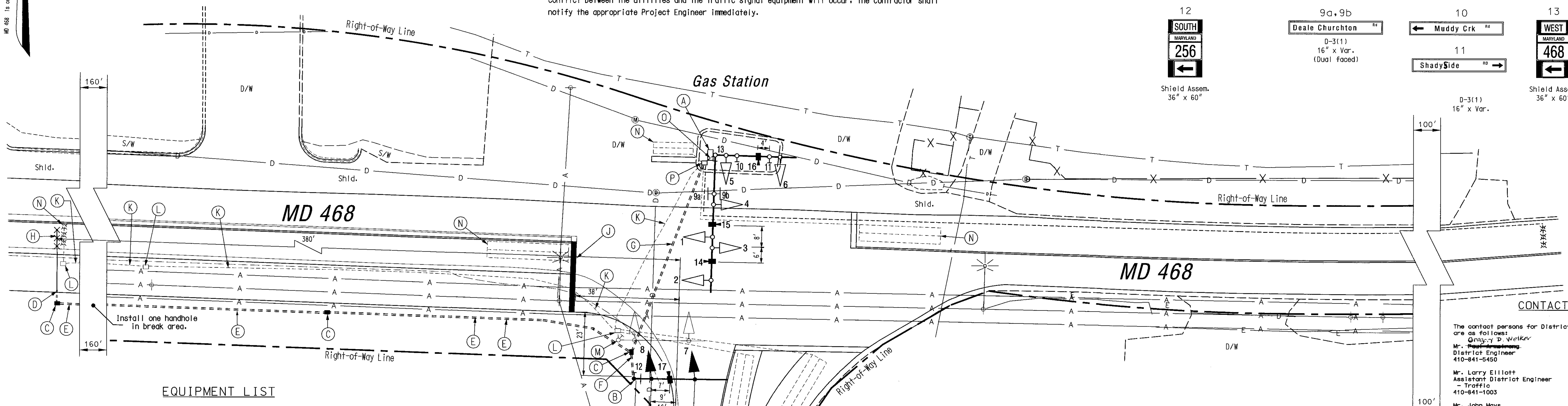
9a,9b
Deale Churchton Rd
D-3(1)
16" x Var.
(Dual faced)

10
← Muddy Crk Rd

11
ShadySide RD →

D-3(1)
16" x Var.

13
WEST MARYLAND 468 ←
Shield Assem. 36" x 60"



CONTACT LIST

The contact persons for District #5 are as follows:

Mr. ~~Paul Armstrong~~ Gregory D. Welker
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410-841-5450

Mr. Larry Elliott
Assistant District Engineer - Traffic
410-841-1003

Mr. John Mays
Assistant District Engineer - Utility
410-841-5450 Ext. 34

Mr. Charles George
Assistant District Engineer - Maintenance
410-841-5461

Mr. Richard L. Daff
Chief, Traffic Operations Division
410-787-7630

EQUIPMENT LIST

A. Equipment to be furnished by the MD-SHA and installed by the Contractor.

Item #	Quantity	Units	Description
9000	1	EA	21 ft. mast arm pole and 34 ft. mast arm.

B. Equipment to be furnished and/or installed by the Contractor. All equipment in this list shall have catalog cuts submitted for approval prior to installation.

Item #	Quantity	Units	Description
1001	1	EA	Maintenance of traffic.
2002	1	CY	Test pit excavation.
5003	25	LF	24 in. thermoplastic pavement marking - white.
8009	1	EA	Micro-loop probe (set of 3) with 500 ft. lead-in cable.
8015	6	EA	12 in. vehicular signal head section (black faced).
8024	1	EA	Install mast arm pole and mast arm.
8028	1	EA	Remove/dispose of existing material /equipment per assignment.
8029	1	EA	Remove/dispose of existing foundation 12 in. below grade.
8031	380	LF	2 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
8033	15	LF	3 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
8036	15	SF	Relocate existing sign
8037	2.65	CY	Concrete foundation for traffic signal structure.
8038	100	LF	Stranded bare copper ground wire (No. 6 A.W.G.).
8045	80	LF	4 in. polyvinyl chloride [Schedule 80] electrical conduit - slotted in roadway.
8046	5	LF	1 in. liquid flexible non-metallic conduit - sleeve.
8049	4	EA	Electrical handhole.
8057	1	EA	Ground rod -3/4in diameter x 10 ft. length.
8062	30	LF	5-conductor electrical cable (No. 14 A.W.G.).
8063	200	LF	7-conductor electrical cable (No.14 A.W.G.).
8065	25	LF	Sawcut for signal loop detector.
Neg.	4	EA	Coaxial cable (250 ft. length) for Video Detection camera.
Neg.	1	EA	Video Traffic Detection System (4 cameras).

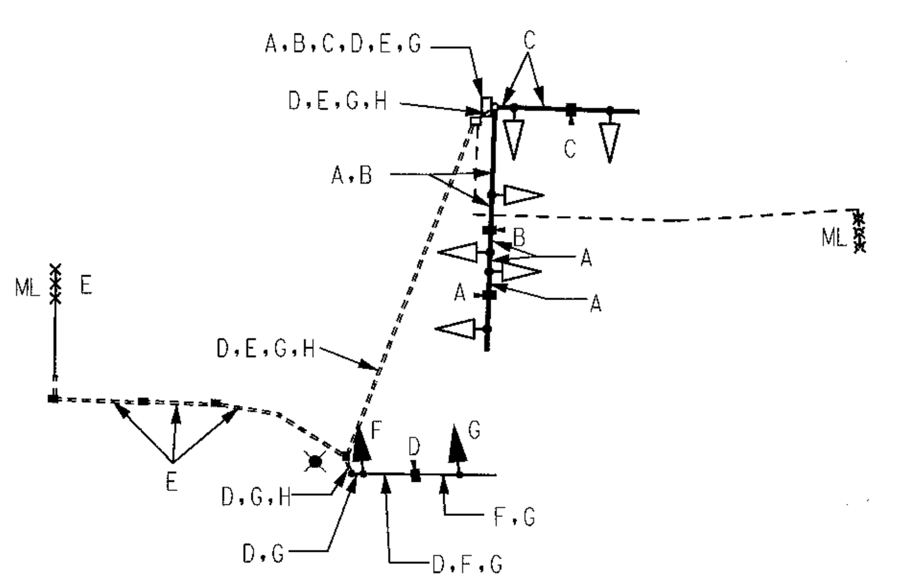
CONSTRUCTION DETAILS

A. Use existing pole and pole mounted cabinet/controller, and all attached equipment. Attach proposed video camera detection as shown.
B. Install 21 ft. steel mast arm pole with 34 ft. mast arm, vehicle signal heads, signs, and video camera detection as shown. Install relocated sign. (Note: one 3 in. PVC conduit bend).
C. Install handhole.
D. Install 1 in. liquid tight flexible conduit for loop detector lead-in.
E. Install 2 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
F. Install 3 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
G. Install 4 in. polyvinyl chloride [Schedule 80] electrical conduit - slotted in roadway.
H. Install micro-loop probe (set of 3).
J. Install 24 in. wide pavement marking - white for stop line.
K. Cap and abandon existing conduit.
L. Remove existing handhole.
M. Remove existing mast arm pole and all attached equipment. Relocate existing sign. Remove existing foundation 12 in. below grade.
N. Abandon existing loop detector.
O. Use existing conduit.
P. Use existing handhole.

Phase Chart

	1 (R Y G ◁G)	2 (R Y G)	3 (R Y G ◁G)	4 (R Y G)	5 (R Y G)	6 (R Y G)	7 (R Y G)	8 (R Y G)
Phase 1	G ←G	G	R	R	R	R	R	R
1 Change	Y	Y	R	R	R	R	R	R
Phase 2	R	R	G ←G	G	R	R	R	R
2 Change	R	R	Y	Y	R	R	R	R
Phase 4 & 8	R	R	R	R	G	G	G	G
4 & 8 Change	R	R	R	R	Y	Y	Y	Y
Flashing Operation	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R

Wiring Diagram



A B C D } 6-pair [Essex GOPIC-FSF] shielded cable (No. 19 A.W.G.)
E — Micro-loop Detector Lead-in Cable
F — 5-Conductor Electrical Cable (No. 14 A.W.G.)
G — 7-Conductor Electrical Cable (No. 14 A.W.G.)
H — Bare Copper Ground Wire (No. 6 A.W.G.)
✱ — Proposed Grounding Rod
ML — Micro-loop Detector

GEOMETRIC LEGEND

EXISTING GEOMETRICS
PROPOSED GEOMETRICS

UTILITY LEGEND

G — GAS MAIN
W — WATER MAIN
S — SEWER MAIN
E — ELECTRIC CABLES
D — STORM DRAIN
A — AERIAL CABLES
T — TELEPHONE CABLES

Revision " B"

The Traffic Group

The Traffic Group, Inc.
410-931-6600
Fax 410-931-6601

REVISIONS

Ⓑ Relocate SW Mast Arm and Install Video Camera Detection. S.H.A. No.: OT-2000 — August 24, 2001
FJH

APPROVALS

TEAM LEADER, TRAFFIC ENGINEERING DESIGN DIVISION
ASST. CHIEF TRAFFIC ENGINEERING DESIGN DIVISION
CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
DIRECTOR, TRAFFIC & SAFETY
ORIGINAL ON FILE

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
(Traffic Signal Plan)
MD 468 at MD 256

DRAWN BY: W. J. Niels	F.A.P. NO. N/A	TS NO. 3441B	SHEET NO. 1 OF 1
CHECKED BY: R. R. Zacherl	S.H.A. NO. 238547250 2877		
SCALE: 1" = 20'	COUNTY: Anne Arundel	T.I.M.S. NO. E-877	
DATE: September 22, 1994	LOG MILE: 0204682.84		

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